DOCUMENT RESUME

ED 021 899 UD 004 347

By-Kress, Roy A.; Johnson, Majorie S.

A STATISTICAL EVALUATION OF THE EDUCATIONAL IMPROVEMENT OF THE PHILADELPHIA BOARD OF EDUCATION FOR THE SCHOOL YEAR, 1965-66. PART A (AND) PART B.

Temple Univ., Philadelphia, Pa.

Spons Agency-Philadelphia Board of Education, Pa.

Pub Date 67

Note-47p.

EDRS Price MF-$0.25 HC-$1.96

Descriptors-*ACADEMIC ACHIEVEMENT, ARITHMETIC, CLASSROOM ENVIRONMENT, *DISADVANTAGED YOUTH, *EDUCATIONAL IMPROVEMENT, GRADE 1, GRADE 2, GRADE 3, HIGH ACHIEVERS, INSTRUCTIONAL MATERIALS, INTELLIGENCE TESTS, LOW ACHIEVERS, PROFESSIONAL PERSONNEL, *PROGRAM EVALUATION, STATISTICAL DATA, TEST RESULTS

Identifiers-Educational Improvement Program, EIP, Pennsylvania, Philadelphia, Philadelphia Verbal Abilities Test, Wechsler Intelligence Scale for Children, WISC

The first section of this report describes certain educational characteristics of the children in grades 1 to 3 who participated in the Educational Improvement Program (EIP). Specifically discussed are the children's intelligence and reading achievement and the program's educational setting, instructional materials, and staff. Data are given to indicate the children's performance on the Wechsler Intelligence Scale and on the Philadelphia Verbal Abilities Test. The second section of the report contains an evaluation of the comparative achievement of two EIP groups and a non-EIP control group. Children in the first (1963-64) EIP group showed achievement superior to that of control group children in reading, arithmetic, and spelling. However, this group was still below grade level for the national average at the end of the program's third year. The second EIP group (1964-65) showed greater positive IQ change than the controls. The second EIP group surpassed the first group in arithmetic scores at the end of the second year. Results suggest that EIP did improve education, though not continuously. It is felt that the results might have been more continuous if the original criteria for staff had been met. (AF)

CONFIDENTIAL
Not For Publication

04347

A STATISTICAL EVALUATION OF THE EDUCATIONAL IMPROVEMENT PROGRAM OF THE PHILADELPHIA BOARD OF EDUCATION FOR THE SCHOOL YEAR

1965 - 1966

Part A: An analysis of certain elements of the program in seven selected schools

Research Organization	Temple University
Research Contract Number	520 - 811 - 02
Principal Investigators	Roy A. Kress Marjorie S. Johnson
Research Coordinator	Marilyn Kaplan
Date of Report	October 21, 1966

UD 004 347
ED021899

"PERMISSION TO REPRODUCE THIS [redacted] MATERIAL HAS BEEN GRANTED
BY John Hayman
TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE U.S. OFFICE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

TABLE OF CONTENTS

Dedication

Statement of the Problem

Materials Used

The Children

- Introduction
- General Statement
- Specific Criteria for Selection
- Their Intelligence
    - Introduction
    - Findings
    - Conclusions
    - Implications
- Their Achievement in Reading
    - Introduction
    - Findings
    - Conclusions
    - Implications
- Their Educational Setting
    - Introduction
    - Classroom Atmosphere
    - CPP levels
- Materials and Instructional Aids
- The Teachers and Consultants
- Recommendations
    - Introduction
    - Specific Recommendations

DEDICATION

If the teachers of the urban public school systems deserve three cheers, the teachers of the Philadelphia elementary level easily deserve a respectful and grateful fourth. This is a time of social upheaval, when motion, any motion, is considered progress, when ideas are championed upon conception rather than upon comprehension. In such a climate, theirs is the responsibility of synthesizing this conglomeration and transmitting a sense of order to our most plastic receptors, our children. Theirs is the opportunity of creating a climate in which that which might otherwise be latent can emerge and flourish, in which the educational process of civilizing can become the process of cultivating. Theirs is the obligation of teaching to increase individual differences. Theirs is the awesome task of casting the direction of a new generation.

Children are easily identifiable; teachers, less so.

To those employees of the Philadelphia Public Elementary Schools who both accept and implement this opportunity, responsibility, obligation, and task, I cast my fourth cheer and dedicate this report.

Marilyn Kaplan
Coordinator

PROBLEM

If the purpose of an educational evaluation be an exploration of the effectiveness of a teaching program, then the focus is on the youngsters. The program is as effective as its reflected effect on their achievement. All else--philosophy, the administration, the materials, the teachers--constitute the components whose sum total is transmitted as "the program". The job of education is learning. And there is no learning without the "learners". It is upon this premise that the evaluation was conducted -- an evaluation of EIP as a "program", viewed through a closer scrutiny of a sampling of youngsters in the program within the selected schools which they attended.

The effectiveness of EIP has been indicated in prior evaluations. (In the report dated August 7, 1964, when first graders in the same schools, before and after the institution of the EIP, were studied, a very highly significant difference in achievement of the two groups was found. Statistical analysis indicated that the difference could not be explained by any initial difference in the groups, and was therefore assumed to be attributable to superior opportunities for learning brought about by the EIP. The report dated November 24, 1965, indicated higher achievement in reading (continuous Progress Primary Levels), attained scores in arithmetic problems, and ratings earned on the Philadelphia Verbal Abilities Test, when compared with a control group from a year prior to the initiation of the EIP (1962 - 1963 first year pupils). The following evaluation is concerned with a more comprehensive look at a sample of youngsters in EIP schools where achievement was below expectation. The question explored was:

> Are there common factors evident in intelligence and reading achievement among the top and bottom achievers in both the high and low achieving classes in the first, second, and third years of school?

The Children

Evaluating the effectiveness of a given program must be done in relation to its appropriateness and adequacy for the children involved. The program's suitability can be understood only so far as the children are understood -- in their own right, and in light of the demands and expectations of the society of which they are a part. It is necessary to view them not only as the products of their society, but also as the society views them in terms of their present and potential roles. The education provided the youngsters reflects all these: the acceptance, the understanding, and the expectations.

> All children cannot be expected to end up the same way no matter what they do themselves or what the school and the home do for them. (1)
>
> Not all the poor are culturally deprived. Although standards may differ widely, 'culturally different' does not mean 'culturally deprived'. (2)
>
> .... to instruct... is nothing more than to help human nature to develop in its own way, and the art of instruction depends primarily on harmonizing our messages and demands we make upon the child with his powers at the moment. (3)

At the on set of the testing program, certain usual assumptions were made that were viewed as less and less appropriate with each additional contact with a school and with its children. One factor common among all the schools in the evaluation was their inclusion in the "pocket of poverty". The poverty referred to is socio-economic. A common confusion is to carry this concept to an incorrect next step and apply it to one of cultural impoverishment. Time and time again the youngsters in the testing population pointed out our error in judgement.

With the exception of a .06% Puerto Rican total, the population tested was virtually all negro. They were all products of densely populated urban neighborhoods. And there the uniqueness of the testing population stops. The neighborhoods varied from those of relative stability, where the once-sub-standard homes had been razed, and the student transfer rate was low, to those where demolition is occurring, leading to family displacement and high student transiency finally, to a neighborhood where the stable population constituted the unaggresive social element that had settled in a slum and had accepted a sense of hopelessness towards any possibility of personal betterment. The last neighborhood was unique only in its reflection of transiency as a broadly-based issue. To operate a school it is necessary to understand the constitution of the neighborhood it serves. Transiency, per se, cannot be viewed as a weakness in the social fiber of the neighborhood. It remains a problem in the schools so effected when the school population turnover is found to equal 125% yearly, as was the case in point.

---

(1) Odell, Educational Survey Report for the Philadelphia Board of Education, Philadelphia; Board of Ed., 1965

(2) Wechsler, David "The I.Q. is an Intelligent Test", N.Y. Times Magazine, June 26, 1966, page 63.

(3) Pestalozzi, J. Education of Man. Aphorisms. N.Y. Philosophica Library, 1951.

The social problems occurring in these neighborhoods and carried over into the schools were by no means unique. There was a conglomeration of problems. Their significance lies in their greater number of incidence rather than in their existence.

In a characterization of the youngsters who constituted the testing population, two traits loom above all others -- their verbal reticence and their pragmatism. For all but a few, the individual testing situation was a strange and unfamiliar experience. Rapport was generally difficult to establish initially. Not all of the schools involved had integrated faculties. The clinicians were all caucasian. Not all the youngsters had ever worked with a male. Some of the clinicians were male. And, not to be overlocked, the testing materials used had been standardized on a white, middle-class population. These children were not a portion of this population: Yet within the framework of these seeming limitations, the results substantiate the basis for the idealism of educators. The youngsters tested represented, as will be shown, a true cross-section of ability, as measured by the Wechsler Intelligence Scale for Children. Despite the questions of "cultural deprivation" or "cultural difference", despite the questions of transiency and population stability, children are children, each one an inimitable combination of both the universal and the unique. In what way did this group, with such a cross-section of ability, re-group in terms of specific characteristics, and reflect patterns in actual educational achievement?

Specific Criteria for Selection

Twenty-four children were studied in each of the seven sample schools, eight from year 1, eight from year 2, and eight from year 3, for a total population of 168.

The youngsters were screened as closely as possible to rule out those variables that would most directly disturb the effects of a program such as EIP. School transiencey was one such factor. as only those youngsters who had received uninterupted exposure to the program within the stable framework of the same school administration and faculty were felt to be representative of the broader EIP population. For the same reason, children with excessive absences were also excluded from the study, due to the sporadic nature of their exposure to the program. In summary, then screening was done to rule out the following variables:

School transfer (minimal requirements established were):

3rd year pupils - 2 years in current school
2nd year pupils - 18 months in current school
1st year pupils - no transfers

Excessive absence
Known psychophysiciological problems detected, or under supervision of agencies outside school jurisdiction

The children were grouped by actual school achievement according to:

- Teacher judgment
- Consultants' judgment
- CPP levels
- Standardized test scores (PRT, secured from EH6)*

The population, per school, per year level, was broken down as follows:

High achieving group --- 2 top achievers
High achieving group --- 2 bottom achievers
Low achieving group ---- 2 top achievers
Low achieving group ---- 2 bottom achievers

In larger schools, where more than one classroom was designated as "high achieving", the total group of high achievers was considered and classroom assignment was viewed flexibly. In such instances, the consultants and/or principal's judgement superseded that of the classroom teacher, in deference to a more objective perspective.

Their Intelligence

Comparison of Various Measures

Achievement is realistically evaluated in relation to the ability of the learner. Consequently, each youngster's intelligence as well as his achievement was evaluated.

Intelligence scores for all the youngsters in the evaluation were available. These scores were derived from the Philadelphia Verbal Abilities test, which is a standardized, group-administered measurement. In order to examine the intelligence factor more closely, the Wechsler Intelligence Scale for Children was administered. This measurement consists of ten sub-tests which were administered individually; six in the Verbal section, and four in the Performance section. An over-all intelligence score, the Full Scale, was also obtained from the Wechsler.

The intelligence quotients derived from the Verbal, Performance and Full Scale scores on the Wechsler Intelligence Scale for Children, and the Philadelphia Verbal Ability Tests, for the total population of 168 youngsters showed the following:

---

* PRT: Philadelphia Reading Test

EH6: Student Cumulative Record Sheet, School District of Philadelphia

		Average	Range
WISC	Verbal	97.56	148 - 57
	Performance	93.73	137 - 55
	Full Scale	95.31	138 - 54
PVA		100.71	130 - 70

The following comparisons were noted between the highest and lowest schools in the study, ranked according to the criteria established by the Philadelphia Board of Education when the original EIP schools were selected.

		Highest Ranked School		Lowest Ranked School	
		Average	Range	Average	Range
WISC	Verbal	96.21	134 - 66	86.83	120-57
	Performance	93.38	123 - 62	91.63	122-67
	Full Scale	93.63	125 - 61	87.92	122-64
PVA		105.00	130 - 70	93.75	130-75

		Difference in Average
WISC	Verbal	9.38 points
	Performance	1.75 points
	Full Scale	5.71 points
PVA		11.25 points

(Arithmetic achievement will be examined in the separate report sub-titled Part B.)

Materials Used

Evaluation - Team Results	School Results
I.Q. Wechsler Intelligence Scale for Children Verbal I.Q. Performance I.Q. Full Scale I.Q.	I.Q. Philadelphia Verbal Abilities
Reading Daniels' Word Recognition Test, Form A Individual Reading Inventory based on Scribner's Childhood Readers, Form A Wepman Auditory Discrimination Test Van Wagenen Reading Readiness Battery	Reading Continuous Progress Primary level

All tests were administered to all the children, the one exception being the Van Wagenen Reading Readiness Battery. This measurement was administered only in instances where the youngster was functioning below the pre-primer reader level, according to the criteria established.

All Measures given by the evaluation team were administered individually.

Interviews and classroom contacts were also used as sources of information about the children and their schools. Principals, consultants, and teachers cooperated, in this respect, as well as through their direct contributions toward the selection and testing of the individual children.

The following comparisons were noted where the attained scores on the WISC were averaged and grouped according to School year and School grouping.

High Achievers - Top of Group (Number = 14) High Achievers - Bottom of Group (Number = 14)

THIRD YEAR

	(Average)	(Range)	(Average)	(Range)
Verbal	114.36	(87 -134)	101.57	(85 - 118)
Performance	109.93	(85 -133)	97.21	(80 - 120)
Full Scale	113.00	(85 -133)	99.64	(83 - 113)

SECOND YEAR

(Number = 14)			(Number = 14)	
	(Average)	(Range)	(Average)	(Range)
Verbal	111.93	(95-135)	103.14	(77-121)
Performance	100.93	(85-123)	98.79	(86-118)
Full Scale	106.29	(97-125)	101.21	(72-117)

FIRST YEAR

(Number = 14)			(Number = 14)	
	(Average)	(Range)	(Average)	(Range)
Verbal	117.36	(99-148)	100.79	(84-126)
Performance	109.50	(87-124)	96.00	(80-118)
Full Scale	114.86	(99-138)	98.43	(81-115)

LOW ACHIEVERS - TOP OF GROUP **LOW ACHIEVERS - BOTTOM OF GROUP**

THIRD YEAR

(Number = 14)	(Average)	(Range)	(Number = 14) (Average)	(Range)
Verbal	86.50	(57-103)	82.64	(67-96)
Performance	84.00	(67-118)	82.64	(64-97)
Full Scale	84.00	(64-107)	81.07	(65-96)

SECOND YEAR

(Number = 14)	(Average)	(Range)	(Number = 14) (Average)	(Range)
Verbal	93.71	(74-110)	78.36	(60-10
Performance	94.29	(71-113)	76.79	(53-96)
Full Scale	93.29	(72-112)	76.43	(54-10

FIRST YEAR

(Number = 14)	(Average)	(Range)	(Number = 14) (Average)	(Range)
Verbal	95.5	(76-113)	84.86	(66-105
Performance	94.5	(78-111)	80.14	(62-99)
Full Scale	94.5	(77-110)	81.00	(62-110

The following comparisons were noted when the attained scores were averaged and grouped according to school year. The break-off point was that which the School District has established as the criterion for placement in Special Education.

Third Year (total =56)

		Score of 77 or above (Number=47)	76 or below (Number=9)	85-77 (N=13)
WISC	Verbal	100.30	75.22	85.31
	Performance	97.60	71.78	83.00
	Full Scale	98.94	70.89	82.92
PVA		105.98	81.67	87.69

Second Year (total =56)

		(Number =47)	(Number = 9)	(N = 7)
WISC	Verbal	101.53	72.00	82.57
	Performance	97.13	69.56	82.14
	Full Scale	99.13	68.00	80.43
PVA		103.40	80.55	82.14

First Year (total =56)

		(Number = 52)	(Number = 4)	(N =11)
WISC	Verbal	100.92	68.50	84.64
	Performance	96.81	72.00	79.64
	Full Scale	99.48	67.50	80.45
PVA		101.92	80.00	85.00

RESULTS AND CONCLUSIONS

1. In a comparison of the average scores attained on the Philadelphia Verbal Abilities with those on the Wechsler Intelligence Scale for Children, the PVA IQ was found to be most closely related to the verbal intelligence quotient of the WISC for the population tested, although it resulted in a higher average IQ than did any portion of the WISC.

a. The closest relationship was found between the PVA and the Verbal section of the WISC, where an average difference of 3.15 point existed, the higher average resulting from the PVA.

b. The greatest divergence was found between the PVA and the Performance Intelligence Quotient of the WISC, where an average difference of 6.98 points existed, the higher score being attained on the PVA.

2. Consideration of the scores of individuals, however, showed even less general agreement between the PVA and the WISC. Differences ran as high as a PVA IQ 36 points higher than an IQ derived from the WISC.

3. When the results of the Verbal, Performance, and Full Scale Intelligence Quotients on the Wechsler Intelligence Scale for Children were compared, the Verbal Intelligence Quotients were found to be the highest.

a. There is an average difference of 3.83 points between the Verbal and the Performance Intelligence Quotients, the higer score being the Verbal.

b. There is an average difference of 2.25 points between the Verbal and the Full Scale Intelligence Quotients, the higher score being the Verbal

c. There is an average difference of 1.58 between the Performance and the Full Scale Intelligence Quotients, the higher score being the Full Scale.

4. When the children were grouped according to the scores they attained on the Wechsler Intelligence Scale For Children, the averages indicated that:

a. 16% of the third and second year children tested have a current functioning intelligence level of 76 or below.

b. 7% of the first year children tested have a current functioning intelligence level of 76 or below.

c. 13% of the total testing population has a current functioning intelligence level of 76 or below.

d. 23% of the third year children tested have a current function ing intelligence level within the range of 85-77.

e. 13% of the second year children tested have a current functioning intelligence level within the range of 85-77.

f. 20% of the first year children tested have a current functioning intelligence level within the range of 85-77.

g. 19% of the total testing population has a current functioning intelligence level within the range of 85-77.

5. In reviewing the average scores secured by the intelligence measures employed in this study and by the School District, the study population was found to parallel and equal that of the average American population.

6. We are here concerned with a selected sample of the population that is, on the average, functioning in the average range. We are not speculating on their potential ability, but, rather, their actual every day functioning intelligence. They represent a sampling of the total population of the seven schools selected for testing, and are achieving below the expected rate, when compared to the broader EIP population. Viewed thusly, the results suggest that many implication may be drawn.

Implications

The first question that inevitably arises is, what constitutes intelligence? The Philadelphia Board of Education has traditionally leaned, at least operationally, towards the view that verbal ability is the truest measurement of intelligence. This is evidenced by its universal reliance in the past on its own test, the PVA, as the determining measurement. This practice has been questioned by various groups, and by Odell, in the survey of the Philadelphia Public Schools. His finding was that "It seems probable that instead of measuring inherent intellectual potential, which is its functioning, the written group intelligence test measures the total cultural impact to date upon the pupil tested. The score yielded accordingly is more a measure of readiness to perform the usually expected tasks of the schools than it is of his native intelligence." (4) David Wechsler, creator of the Wechsler Intelligence Scale for Children, views intelligence through a more global frame of reference. He claims it is "... more than sheer intellectual ability." (5) It is the aggregate of various cognitive abilities, which he divided into concrete, manipulative activities (the non-verbal, or performance tasks) and the less concrete, non-object oriented activities (verbal tasks). Yet despite the common criticism that these youngsters are being penalized by having their intelligence evaluated on the basis of a standardized verbal measurement (the PVA), the results of this study indicate that this measurement of verbal intelligence tends to place them higher rather than lower than does a test such as the WISC.

It is to be noted that the test limits of the PVA and the WISC do differ. Whereas, the kindergarten and first year PVA has IQ limits established at 80-130, and the second to fourth year PVA has limits of 70-130, (the actual lowest IQ being 73) the WISC limits are set at 46-154. One must take into account the distortion that results at the upper and lower limits of any standardized test measurements before the scores can be interpreted or compared with any degree of fairness. This implies that those youngsters falling in either of the extreme groups set by the PVA would then fan out and show either a higher or lower IQ. when measured by an instrument such as the WISC, which offers a broader span. In other words, a youngster in the second year of school might attain an IQ score of 70 on the PVA by virtue of answering one test item correctly, (since this is the lowest score attainable). yet when evaluated on the WISC his score could reflect an IQ as low as 46.

The higher results recorded in their individually administered verbal intelligence measurement, as compared to their performance intelligence, suggests the following possibilities:

---

(4) op cit, Odell

(5) Wechsler, David: Manual of WISC NY: Psychological Corporation 1949, page 5.

> There has been a generalized underestimation of the verbal intelligence of this type of "deprived" population. This may reflect a tendency to consider the degree and/or quality of articulation of ideas as an indicator of verbal intelligence. The psychologist, and psychological measurements (such as the WISC) , view conceptual understanding as more relevant. The qualitative response, rather than the quantitative, is the question in point.
>
> The question of "cultural difference" is apparent in relation to the more pragmatic problem-solving approach employed by these youngsters. Their experience has led them to function in a more direct, less verbose manner.
>
> They may give the impression of being less verbal, but in reality, when confronted with tasks categorized as measures of verbal intellectual functioning, their responses meet the criteria established by the results of standardization based on the average American population.
>
> It is to be noted that the significantly lower average verbal intelligence achieved in the losest ranked school reflects the burden of English as a second language to the young Puerto Rican children in that particular school. The younger the child, the more the verbal section of the WISC represented a true language test, as many of them enter the first year of school speaking only Spanish. Consequently, their language development in English is significantly below that of an American born child. In their instance the Verbal measurement was not an indicator of their intelligence.

Conversely, the lower results recorded in their individually administered performance measurement, as compared to their Verbal intelligence, suggests the following possibilities:

> Performance measures involve the manipulation of concrete objects. While cognitive ability is the actual area being explored, the non-verbal make-up of these measures adds the factors of visual and kinesthetic involvement, and their relation to the cognitive processes. The youngsters involved in this evaluation may be inferred to have had limited experiences with symbolic types of manipulative materials similar to those employed in the intelligence measurement (i.e., puzzle-type tasks).

> Odell stated that "The (home) environment of the child may ... sparse -- with few pictures and few household objects. Those things that do exist may lack variation in color and form. Manipulative objects may be few." (6)
>
> Independent investigations indicate a significant correlation between sub-standard living conditions (i.e., insufficient sleep, inadequate nutrition, limited physical exercise) and a lagging neurophysiological maturation rate. Such a lag could well account for relatively inferior performance in manipulative measurements for a population where these factors prevail.

Closer attention is warranted to the question of grouping children for instruction. If a child is not achieving at grade level, he may still be doing as well as could be expected of him according to his mental age, and, consequently, is to be considered an achieving student. It is therefore essential to understand the ability level of each youngster so that he can be placed in the learning situation that is best adjusted to his rate and need.

> "The possession of less than normal intelligence need not be a cause of ... disability. However, when instructional methods are not adjusted to his slow learning ability, an accumulation of partial learnings will eventually make it impossible for such a child to profit by ordinary classroom instruction." (7)

Conversely, the presence of the slow learner (s) in a regular classroom can be a deterrent to the appropriate pacing of instruction for the more able learners in the room.

---

(6) op cit, Odell P. 65

(7) Bond and Tinker. Reading Difficulties: Their Diagnosis and Correction. N.Y. Appleton Century Crofts, Inc. 1957

Their Achievement

Evaluation of Reading

The reading achievement of the youngsters in the study was evaluated from two points of view; that of the school, which is determined by the teacher and by the results attained on standardized group tests, and that of the clinicians involved in the study, through administration of a series of individually administered measurements of the various aspects of reading. The youngsters were being evaluated on their ability to recognize words at sight, as well as their ability to analyze those words not recognized on their initial presentation. The words presented were not limited to the reading vocabulary stressed by their particular basal text, but from a sampling of the most frequently occurring words employed by the major textbook publishers at each reader level. They were evaluated on their ability to recognize words in both isolated and contextual situations. This approach to evaluating word recognition extends beyond a test of recognition and retention of a limited group of words presented in the formal learning situation. Rather, it evaluates a youngster's ability to handle words that should be familiar to him in terms of his exposure to them in his total environment, and his ability to apply analysis skills independently, as his need occurs.

Word recognition and analysis, however, is but one phase of the aggregate of skills that constitute reading. While it is true that one must be able to identify the words in order to read, it is the meaning conveyed by the inter-relationship of the separate words that is the crux of reading. Reading has been defined as thinking stimulated by the printed word. The emphasis is on the thinking, or the meaning that the reader is able to glean from the words, rather than from the identification of the words alone. Keeping this frame of reference in mind, each youngster was presented short selections of graded reading materials which he read, alternating between oral and silent reading. After reading, he was asked questions, based on each selection, that tapped his ability to recall facts, draw reasonable inferences based on the material read, organize the information in the selection, show a clear understanding of the specific vocabulary items as they were used in that particular context, interpret typographical notations (punctuation marks, etc.) etc. Major concern was focused on determining the highest level at which the youngster could profit from instruction, which was then designat as the instructional level. The criteria applied for this determination were based on Betts' recommendation of scores of 95% in word recognition in a contextual setting and 75% comprehension, averaged out of two readings at the same level, one done silently and one don orally at sight.

In evaluating the word recognition scores obtained from a list of isolated words, where there were no contextual clues to use as an aid to their analysis, the criterion was set at 75% recognition on an untimed exposure of the words. Similarly, when reading the stories, the 75% average comprehension score was adhered to in determining the level of comprehension. The results, when averaged and translated into their CPP equivalent levels, were as follows:

Findings

HIGH ACHIEVERS - Top of Group			HIGH ACHIEVERS-Bottom of Group
(Number = 14)		THIRD YEAR	(Number =14)
Word Recognition -	7.71		5.21
Comprehension -	4.71		3.71
Instructional Level -	5.07		3.50
CPP Level (Schools')-	7.43		6.14
(Number = 14)		SECOND YEAR	(Number = 14)
Word Recognition -	6.79		5.36
Comprehension -	4.89		4.14
Instructional Level -	4.86		3.79
CPP Level (Schools')-	6.36		5.57
(Number = 14)		FIRST YEAR	(Number = 14)
Word Recognition -	5.21		3.21
Comprehension -	4.07		1.43
Instructional Level -	3.86		1.29
CPP Level (Schools') -	4.31		3.46

LOW ACHIEVERS - Top of Group			LOW ACHIEVERS - Bottom of Grou
(Number = 14)		THIRD YEAR	(Number = 14)
Word Recognition -	3.50		2.07
Comprehension -	1.50		1.29
Instructional Level -	1.57		1.14
CPP Level (Schools') -	3.79		2.50
(Number = 14)		SECOND YEAR	(Number = 14)
Word Recognition -	3.00		1.36
Comprehension -	1.64		1.00
Instructional Level -	1.43		1.00
CPP Level (Schools') -	3.57		1.93
(Number = 14)		FIRST YEAR	(Number = 14)
Word Recognition -	1.86		1.21
Comprehension -	1.07		1.07
Instructional Level -	1.07		1.07
CPP Level (Schools') -	2.43		1.79

Conclusions

The results of the reading evaluations reflect the following:

1. There is a high correlation between the word recognition scores and the CPP levels, designated by the schools as the youngsters' functioning reading levels.

2. There is a high correlation between the comprehension levels and the instructional levels designated as a result of the individual testing administered as part of the study.

3. The schools' CPP levels ran consistently higher than those in the individual testing situation.

    a. An average difference of one to three-and-a-half CPP levels existed between the instructional levels and the schools' CPP levels.

    b. A greater average difference existed between the scores of the high achievers than between the low achievers.

4. Word recognition scores were significantly higher than comprehension scores.

    a. For those youngsters designated as the top group among the high achieving classes, length of time in school increased the spread between their word recognition and comprehension scores.

    b. For those youngsters designated as the top group among the high achieving classes, the average word recognition scores were beyond their year level in school.

    c. For those youngsters drawn from low achieving classes, word recognition scores were depressed below their school year level

    d. The bottom achievers drawn from the low achieving classes in the first and second year of school were found to be functioning at a reading readiness level.

5. The averages of the scores obtained in reading comprehension indicate that all groups involved in the testing program were functioning below their school year level.

6. The bottom group of first year high achievers and all the youngsters designated as low achievers were functioned at a reading readiness level.

7. The averages of the levels obtained as appropriate for instructional purposes indicate that all groups involved in the testing program were functioning below their school year level.

Implications

The conclusions drawn from the test findings indicate both the direction of the emphasis that has been placed in the reading program as well as the new direction that is now necessary. The area of most significant achievement has been in word recognition. The success of the top achieving group attests to the validity of the EIP approach to teaching word recognition and analysis skills. The attention paid to the development of a more definitively structured, concrete approach, plus the support and elucidation offered by the consultants, has clearly filtered down through the classroom teacher to the students.

It is to be expected that the lower achieving classes would have lower reading achievement scores. However, results indicate average scores at reading readiness for all lower achieving youngsters in the study group. A more careful look is needed at all aspects of the program in relation to these children:

> The children themselves, in order to screen out any retarded educables or retarded trainables and provide them with their special program.
> The quality and quantity of instructional aids for the slower learner.
> The variety and quality of teaching and practice techniques at the teacher's disposal.
> The teacher's understanding and acceptance of the nature of the slower learner. *

The marked depression of comprehension scores below school year level for all the youngsters tested indicates a serious need for concern in this area. This, along with the correlation between the word recognition scores and the schools' designated CPP levels, indicates a need to redefine the reading taskand its purpose. If one emphasizes word recognition at the expense of teaching the comprehension skills, then one is accepting reading as an exercise in word-calling. If reading be word-calling, then what is the purpose of the context? What of subject matter? Reading is obviously not a series or list of words unrelated in meaning. The essence of reading is the meaning that can be derived from it. It is here that the achievement of these youngsters is weakest. It is this area that is being overlooked by the teachers in their evaluation of instructional levels.

---

* See deHirsch, Katrina; Jansky, Jeanette; Langford, Williams: Predicting Reading Failure - N.Y: Harper and Row. 1966 pp. 86-92

Their Educational Setting

Introduction

A young child is an organism loose in an environment seething with activity. What that youngster becomes is dependent upon the relationship of himself to his environment. Once infancy has been outgrown, the external environment impinges more and more on the child's perceived universe. How is this environment being seen? Is it amorphous and chaotic? Or is it wondrous, ever-changing, challenging in the limitless possibilities it offers in the pursuit of a sense of order?

Can this pursuit offer a path whose way will embody an orientation towards the endless search for his identy? If amorphous, then hostile? If wondrous, then conductive to appreciation, respect. acceptence?

A child enters school, ready or not, and is introduced to a more formalized approach to his universe. He is confronted with the exciting yet seemingly endless tasks expected of him as part of what Odell calls the "modification of behavior" that is his education. He is a highly vulnerable being. In order to learn at all, he needs to be highly sensitive. He must recognize that which is expected of him and be able to interpret these expectations in a way that is functional for him before he is able to make the adaptation. In his desire to gain approval and to grow, he must commit himself to a more disciplined, controlled existence. His comprehension of this discipline is spelled out for him by his society--by his authority figures and by his peers. What is it that is being transmitted to him in the name of the civilizing process of education?

The Classroom Atmosphere

To characterize the EIP classroom, albeit only a random sampling was visited, is to attempt to describe with static words a pulsating, dynamic atmosphere. The inescapable initial impression is one of marvel at the enthusiasm of the teachers. Theirs is a sense of the positive, which is reflected in their concern for the youngster in the total learning situation. Theirs is a dedication which leaves one with the feeling that this is the impact of the EI

In walking into an EIP classroom, one is impressed with the wealth of visual materials in the form of clothesline exhibits, bulletin-board displays, posters, etc. The atmosphere is one of gaiety and cheer. In most instances the materials are teacher-produced. The spontaneity which comes from student-prepared materials is too often absent. Even more relevant, this relegation of the child to the more passive role of the receiver rather than the active participant is inconsistent with the philosophy of EIP. It gives the impression that, in practice, the classroom continues to operate on a more abstract, superficial level, where external appearance takes precedence over the more complex and far more dynamic experience of involvement. A classroom is creative to the degree that it reflects the personalities of its inhabitants.

A creative atmosphere is as elusive to define as it is easy to recognize. It is one which allows each to receive and to express freely that which he perceives in his unique, individual way. It is blighted by inhibition. It is thwarted by restraint It is one which cherishes curiosity and sensitivity. It flourishes in an atmosphere alive with the joyous respect for being. It welcomes freedom rather than fears it. The creative teacher is one who is able to create such an atmosphere.

The wonder and curiosity that are characteristically child-like are the seeds of motivation for learning. The more reticent, retiring, or "deprived" youngster demands an atmosphere where these need be fostered. He craves the kind of stimulation that will help him to focus on what otherwise might elude his attention. He needs an atmosphere open enough to admit room to stretch--so that that which might otherwise remain latent may have an opportunity to show itself, be recognized, and be encouraged to flourish. He requires an atmosphere geared to *increasing* individual differences, which is the natural outcome of respect for the individual--of his abilities, his needs, and the opportunity to work on that which he is ready to handle, when he is ready to handle it. And this need be offered in an atmosphere with discernible limits which insure the comfort of a structure to both learner and teacher.

The idea of a structured atmosphere or a systematized presentation of skills in no way need inhibit the creativity of the atmosphere or the approach. Both are but the guidelines that tie in a sense of order with what might otherwise appear fragmentary, and consequently spare in its relatedness and concomitant meaning. EIP has been successful in doing much to systematize and structure the learning program. Such innovation as the arithmetic learning centers, which are currently operating in several EIP schools, are examples of what can, and is, being done. The learning center was not a part of the original plan for EIP. However, its presence in EIP schools has made it ancillary to the EIP arithmetic program in those schools. The learning center represents the fusion of a highly creative approach in a carefully structured atmosphere that is geared to the needs, interests, and capabilities of the youngsters sharing its varied experiences and opportunities.

Materials are developed by the EIP office. Coordinators introduce techniques and new and available instructional aids, create materials, and suggest supplementary activities for the classroom teacher. Consultants act as the liason between the coordinator and the teacher, in addition to serving as resource persons and ofttimes supervisors of new and inexperienced teaching personnel. The emphasis throughout *this* hierarchy is the bolstering of the program through additional help to its key disseminator, the teacher. Consequently, the program may be considered as creative as those who implement it. It is not inherently creative. It is more a matter of *how* it is executed, and the *how* is determined by the people and their attitudes.

What makes a person creative? Donald MacKinnon, the director of the Institute of Personality Assessment and Research at the University of California at Berkeley, characterizes the creative individual as one with a high level of effective intelligence, openness to experience, freedom from crippling restraints and impoverishing inhibitions, esthetic sensitivity, cognitive flexibility, independence in thought and action, high level of creative energy, unquestioning commitment to creative endeavor, and unceasing striving for solutions to the ever more difficult problems that he constantly sets for himself. How might one more aptly describe the characteristics of a good teacher! And how clearly it points the additional direction EIP need assume to reinforce the quality of its basically sound approach!

It is not sufficient to concentrate merely on resource personnel techniques, and instructional aids. Equally important is the need to foster the aforementioned qualities of openness, freedom, flexibility and continual searching for greater understanding. In a program dedicated to the improvement of instruction, such goals for teachers should be an integral part of the whole. These goals can be pursued in as carefully structured a program as that which has been delineate for the children. The ultimate purpose remains the same. The approach is different only insofar as its commitment to a longer-ranged preparatory period. Creative teachers are not processed. They are not the result of a four-year college program, or an indefinite number of in-service or post-graduate courses. They can be developed, gradually, It is their improvement which most directly will effect the learning atmosphere of the children. It is this link in conjunction with the continued interpolation of available materials and the increased availability of resource persons, that offers the greatest promise of improving the achievement within the EIP.

EIP, as a program within the overall structure of the elementary schools, is directly involved in the organization of the continuous progress primary. Observation indicates too passive an involvement in this organization. One step towards bolstering the program would be a more direct step towards fusing the inherently creative theory behind the continuous progress primary and its actual execution.

Within the theoretical framework of the continuous progress primary, a youngster remains in a homogeneously arranged group, receive his instruction systematically, and progresses at his own rate. In recognition of the differing individual learning rates this implies that the slower learner would remain with a slower group during the relevant period when his learning rate slowed down, just as the more rapid learner would move ahead when his progress indicated his own readiness. Such is the intent.

Odell described this quite aptly when he stated, "A ... representative label for the phenomenon being dealt with would be 'continuous uneven progress' for it is this uneven aspect of growth that complicates the translation of this point of view into practice." (8) In the Philadelphia Schools cognizance of this phenomenon is given in the continuous progress primary.

In order to function with any degree of success, a CPP approach should be very flexible, involving a considerable amount of movement. It is effective to the degree that accuracy and consistency characterize the evaluation of the youngster's ability, current achievement, and learning rate. When the responsibility for the evaluation is left to the classroom teacher, as is the present practice, the amount of variability is sufficient to distort the execution of a basically sound theory. Emphasis tends to shift to book placement rather than skill achievement. An undue concern is placed on the stability of the group, rather than a more clearly defined series of groups that are ever-changing in membership, but constant in their concern for a systematic approach that is provided to those ready for those skills.

Personality factors are too apt to impinge in an area where the major concern should always be the appropriate pacing and placing of the learner. Varying degrees of proficiency in objective evaluation become inevitable when the teachers are given this responsibility. Clearly, good teaching involves a continual evaluation of the youngster's progress. This is always a responsibility of the classroom teacher. But within the CPP structure, there is a need for a more objective over-view of the total program being presented in order to better determine the most appropriate placement for each youngster. This evaluation and determination should not be the responsibility of the classroom teacher. Within the structure of the EIP, the logical person to assume this responsibility is the consultant by virtue of her administrative position over a total program, and also in recognition of her more specific training.

---

(8) Odell, Educational Survey Report for the Philadelphia Board of Education. Philadelphia: Board of Education, 1965

The Learning Materials and Instructional Aids

No one could question the validity of concretizing early learning experiences. In cognizance of this, every attempt is made in EIP to introduce objects, to be manipulated kinesthetically, which represent the basis upon which is developed an understanding of the more abstract symbolic representations of letters and numbers. One astute observation was that materials were merely devices for implementing *what* was being taught, should not be the *things* being taught. There is ample reason to believe that this subtle shift towards teaching things is precisely what is happening. The mere handling of the objects is only an initial step in learning. It is necessary to see the relatedness of the object to the symbol through the concept. Without the cognitive involvement of conceptualization, the manipulative activity is reduced to meaningless play. To "teach" relatedness is not synonymous with "learning" it. The almost universal discrepancy between the Performance (non-verbal) and Verbal Intelligence scores strongly point out a break-down in the non-verbal areas. The youngsters were able to manipulate the various materials used in the evaluation of their intelligence. They were *not making* the cognitive or conceptual connection with the objects. This was clearly underscored in the evaluation of the same thinking abilities in both verbal and non-verbal contexts (i.e. making social judgments in the Comprehension sub-test of the Verbal and in the Picture Arrangement sub-test in the Performance), where the Verbal responses were significantly superior. Obviously, the ability to make the judgments was there. It was apparent in the verbal context. It was *not* in the non-verba

A continuum could be drawn to relate the views held on the subject of materials and instructional aids. Generally speaking, the principals expressed the more idealistic views, which reflected their positions as policy interpreters and teacher trainers. Their thinking placed the emphasis on the teacher rather than the materia and repeatedly reflected the belief that the best teaching is achieved when the teacher and the learned are both deeply involved in giving forth their ideas. They agreed that the best materials are teacher-prepared, and although instructional aids were acknowledged as important, they were not (felt to be as effective as material worked out by the teacher) for specific children to teach specific concepts needed at a given time. In a situation where there is an overreliance on meterials, it was felt that the willingness to work with the child and to become personalized with him was sacrificed. This view did not discount the value of having materials, per se, but merely questioned their role. One principal felt there has been an over-emphasis on them, which is a disadvantage to the EIP. It generates the feeling especially among the newer teachers, that with more materials one could teach better. By and large, the feeling among the principals was that in its third year, EIP has deteriorated because of a shift of emphasis from its original three-pronged approach (decreased class size, increased supplies and instructional aids, and the addition of consultants to help teachers teach) to a concentration on the one element, materials. This, it was felt, was not sufficient to execute a basically essential program.

These feelings were not universal. It is interesting to note however, that those principals who responded with enthusiasm about the increase in available aids and who felt that they could use all the extras they could get, were newly-assigned principals. (In one situation, the principal being interviewed was the third appointment at that school within a four month period). Where administrative instability was a factor (as in the re-assigning of principals from one school to another) there is little wonder that aids were seen as the pragmatic solution, rather than a concern for a long range approach to teacher development. The consultants--in their multiple roles of assistant to the principal in the training of new personnel, disseminator of techniques, approaches, and materials distributed by the EIP office; and capacity of master teacher--could appreciate both views expressed by the principals. They are the ones with the full realization of the place instructional aids should have in the classroom. Ideally, a teacher prepares them. But past history has shown that not enough teachers did. And so the EIP office in an attempt to pave the way towards a concept of more effective teaching, has been producing and compiling the tangible components.

One of the unquestionable strengths of EIP is its attempt to systematize instruction; that is, to program the skills and concepts to be taught in their sequential order. Guidelines have been drawn which spell out the skills, level by level. This attempt to structure content is invaluable. It represents a more explicitly programmed format that, at the price of the efficiency that machines offer, substitutes for the invaluable interplay between the teacher and group.

It is a giant step ahead of the license permitted teachers in the past to determine the specifics to be taught, either as recommended by a given basal text publisher, or as sketched by earlier curriculum guides. The evidence points, however, to the conclusion that the teachers vary greatly in their understanding of these level-by-level guidelines. Many teachers denied any familiarity with the skill criteria for assignment of CPP levels in reading.

With the increased allocation of funds for materials, the EIP teachers were given the opportunity to order the texts and materials they felt would be most appropriate for their youngsters. This theoretically sound intention has not been received well. One person summed it up by saying that it is the purpose of the Board of Education to help the school, and not the responsibility of the school to help the Board, as in requisitioning materials. The funds were available, but rather than ease the teachers from a preponderance of paperwork, the added responsibility of choosing materials increased the burden. If the teachers are to continue to have this responsibility, one principal stated that he would like a committee formed and released from classroom work for one week in order to provide them with the opportunity to examine available literature on new materials. In this way they would be able to make more discreet selections. The problem was repeatedly expressed as one where, if teachers were given the opportunity to preview materials, individual selection would be viewed more as an opportunity.

The teachers were definitely in favor of more and more instructional aids. A particular shortage was felt to exist at the lower levels. Whereas the material produced by the EIP office was considered appropriate and very helpful, other materials in current use were not considered consistent with the objectives outlined in the EIP brochures. In particular, the arithmetic books and phonics materials were cited.

A shortage of texts persists. There are classrooms that are not equipped with their own sets, and must share books with another group. This was felt to be particularly disturbing to the youngsters involved, who were denied the opportunity and the responsibility of having their own material.

The introduction of new texts was considered particularly helpful in those instances when youngsters complete their regular book but are not yet ready to move into a higher level. The teachers are reluctant to repeat or continue in the same level if supplementary texts at that level are not available. Such a situation leads to inappropriate placement of a youngster by virtue of the fact that he has completed the material in his assigned text, regardless of his mastery of it.

The Teachers and Consultants

It has been the approach of this evaluation to examine each major component of the program. We considered the youngsters first, in relation to both their functional ability and their achievement. We then considered the role of materials and instructional aids that are being employed in an attempt to match their achievement to their ability. We must now consider the teachers.

One principal reflected that the program is as good as the teachers involved in it. He commented that perhaps one reason for not achieving the hoped-for success is the presence of too many "garden variety" teachers. To hold this opinion is neither a condemnation nor a devastation, unless it is interpreted as a final statement. The author will exercise the license to interpret it as the opposite, that is, as the initial point in considering responsibilities of and to teachers, "garden variety" or otherwise. Teachers are born as human beings; they are not born as teachers. In any given group, whether it be a broad cross-section or a smaller specialized group, we find a proportionally low percentage of exceptional individuals at each end, with the bulk falling in the average, or "garden variety" range. We find this in every profession. Yet it has become a volatile point when made in reference to teachers.

We tend to dichotomize out thinking in education and to separate the students from the teacher in terms of their needs and our responsibilities to them. In this way we commit a grave error. We are _all_ learners, the teachers and the students alike.

EIP is based on the acknowledged acceptance of learning as a continuous process. It has therefore structured the sequence of concepts to be taught to the youngsters, and has attempted to provide the situation in which this can be best implemented. It has been negligent in providing this same opportunity for its teachers. Much attention is focused on the teacher shortage. Recently published reports show an increased teacher transfer rate out of the Philadelphia Public Schools, along with an inadequate intra-District transfer rate into the "deprived area" schools.

The hiring of new teachers is a problem that the Board has both faced and is acting on. Our concern is not the selection of teachers, but the professional development of them. After a teacher has elected to work with the youngsters, our responsibility is to provide every possible opportunity towards helping her achieve greater insight and proficiency in her complex task. We have no right to expect more if we will not provide more. The recent experience of the Philadelphia School Board has shown that the answer does not lie solely in increased financial compensation. Observation, interview data, and common sense indicate the need to be in professional in-service training.

The reduction of class size, the addition of consultants, and the increase in instructional aids could all be considered "remedial measures". This does not degrade either the intention or the execution of these measures. It merely emphasizes the degree of need for such a move. Now that the program is in operation, the concentration of concern that initially focused on its initiation must shift in the direction of its continual re-evaluation and improvement.

At this stage it appears that the major emphasis should be on as intensive a concern for the professional development of the teachers as has thus far been centered on the achievement of the beneficiaries of their proficiency, the youngsters. This concern must now move in a direction other than the mere addition of more things to assist in teaching. Consideration of the learning processes, both specifically and generally, is now due. Sufficient research and development are constantly under way to behoove every teacher to assume the attitude of personal responsibility for at least an awareness and consideration of these findings. This is not always possible. However, when a program such as EIP makes such a concerted effort towards improved instruction, it becomes necessary to buttress each component. Until now, the weak link has been in the help provided towards the continued professional development of the teacher.

There was no objective measurement used to evaluate the effectiveness of the consultant in the program. Yet the most casual observer could not help but note their invaluable contributions to both EIP and the teaching - learning atmosphere in their respective schools. Their very presence has added a sense of the more immediate consideration of the teacher as she meets both the theoretical and the practical questions that confront her day by day in her classroom. This, in itself, has done much to raise professional morale. The consultants' availability and ability to help the classroom teacher translate theory into practical techniques has eased what might otherwise be a burden in teaching, and a stumbling block to learning. On the one hand, the consultants provide the spark that lights the direction towards more meaningful teaching, and, concomitantly, greater professional involvement. On the other hand they offer a note of stability to the potentially bafflingly complex world of primary teaching. Their worth cannot be over estimated. However, their contribution reaches the point of diminishing returns when their functions exceed those requiring their special skills and abilities and overlap into areas that can be more economically serviced by the lesser trained.

The consultants work through meetings, demonstrations, and through the knack of being very available. The quantity of materials and information passed on to the consultant is tremendous. Their opportunity to disseminate them with the time and attention they warrant is cripplingly limited. In those schools that were holding meetings at regularly scheduled intervals, the EIP teachers were meeting with their consultant either at lunchtime or during the youngsters' assembly period. That provided a 30 - 40 minute interval each week, at best, to explain, discuss, and distribute educational and testing materials; introduce techniques; reinforce the philosophy; and review sequences. Other schools held meetings "whenever possible". In these schools the teachers repeatedly expressed the desire to have more opportunities to meet with the consultant. The lack of communication was sorely felt, as was the lack of coordination between the organization of the program and its execution.

FINAL RECOMMENDATIONS

Introductory Statement

The basic ingredients in teaching are the youngsters, the learnings, and the teacher. The function of any educational program should be to move steadily toward more critical, analytic learning in the hope of preparing the youngster to cope with the circumstances that will constitute his life, to be able to realize his inherent potential to the best of his ability, and to realize the fulfillment of his accomplishments as an individual and as a member of a larger order, society. It is therefore the obligation of the society to see that every possible effort is expended towards the continual evaluation and improvement of the educational program.

EIP is one such effort. Those involved in it have recognized the theoretical soundness of it, and consider it a composite of common sense. A most common response is one of surprise that this is considered educational improvement rather than just teaching. It is held in the highest regard in relation to its general philosophy, implementation, and curriculum. It is credited with recognizing realistic problems and trying to cope with them. The results can be seen in the increased motivation of the children, and the positive finding that the more they learn, the more they want to know. Class size is down, providing the opportunity for more individual work and smaller group organization. Achievement is up, but not sufficiently. If, as has been shown, we are dealing with a complete cross-section of ability, if the learnings have been more carefully delineated in improved materials, if additional instructional aids have been made available, then we must look elsewhere to see where the break-down occurs which is weakening the fiber of the learning program.

The interpretation and evaluation of ability is the unexpressed base upon which the controversy concerning compensatory education exists. It is the concept that concludes that inordinate differences exist. It is the attitude that espouses the belief that to be a product of any environment outside and below that commonly recognized as middle-class constitutes deprivation. It is the point of view that falsely equates difference with deprivation.

EIP, as one attempt towards compensatory education, has assumed the responsibility of examining closely the questions of ability and learning attainment. It has also given consideration to the physical, social, and educational environments of these youngsters in its inclusion of supplementary materials and activities. The essential ingredient in this concern has been and must remain the individual youngster. There is no room for social do-goodism in such a program. What need be stressed is the understanding of the individual youngster The results of the testing have shown the study group to consist of a group of children with a normal spread of endowment of intelligence. Experience in evaluating the measurements employed has reflected specific tendencies found in this population that are not universally found among children. These tendencies are not in intelligence per se, but in a kind of intelligence, as exemplified in their problem-solving approach. It is here that one can clearly see the environmental effects on their thinking. There was neither an inordinant impairment nor depression of intelligence; merely a more direct, pragmatic approach. In this a cultural difference could be clearly detected. It lead to neither a superior nor inferior result. It was merely worthy of note in further understanding the thinking of the youngster (s).

The quality and degree of articulation characteristic of these youngsters was another instance of a cultural difference which was significant in its educational implications. While education strives to increase the articulation and expression of ideas, an educator must not err in equating this with intelligence. To do so is to underestimate vastly both the functioning and the potential intelligence of children who may be the products of homes where verbal communication is limited.

The first obligation, then, is to know the child. Through knowledge one can better accept, and define need. Any child is worthy of such consideration.

In a program that is basically skill-oriented, it is important to reconsider one's view of skill in relation to ability. Rather than emphasize the factor of ability as the determinant, the concept of compensatory education pre-supposes that the improvement in skills will, in turn, be reflected in an improvement in ability. Viewed in the academic context, EIP is geared towards the improvement of the basic skills in reading and arithmetic. In both these areas we are involved with highly abstract symbols which represent concepts to be manipulated by the learner. The emphasis need be in the thinking area. And so it is, as evidenced in the materials available for instruction. There is no question that this is the concern of the coordinators, the consultants, and the principals. There is, however, a very big question as to the insight and awareness of the teachers of the subtle but crucial step in learning between the experience and its synthesising with past experiences which constitutes true comprehension.

EIP has taken the first steps in paving the way toward improved instruction by decreasing class size, providing competent consultants and developing more appropriate materials. It must now move into the area of teacher training and provide the same opportunities for its teachers as it has done for its consultants. It is unreasonable to expect the teachers to assume this opportunity towards the increased professionalism of its members. At this point it is the area that deserves the greatest investment of time and talent. Its returns will affect the school, the program, the teachers, and most important of all, the children.

The purpose of testing is to replace assumption with fact. We will therefore look to the results of the tests administered to the youngsters as a part of the evaluation in order to better understand the dynamics of their achievement.

The results on the WISC have indicated that even when the learning experience was concretized for the youngster the assumption could not be made that learning had been facilitated. It is true that the tangible representation of a concept is easier to work with than its abstract representation. It is therefore true that a basic step in learning a concept is familiarity with the concrete components one is to perceive. And it is on this principle that EIP has devoted much time and attention towards the increased provision of more concrete experiences relating to the basic skills program. The ability to physically manipulate objects is the first, not the final, step towards conceptual understanding. And it is here that the results on the WISC indicate the break-down is occurring. The relatedness of the object to the idea is not automatic. The manipulation of the object is not absolute evidence of the manipulation of an understood concept. And the understanding of conceptualization is reasonable to expect, but not to assume of teachers.

EIP has provided consultants to work with the teachers. However, because of the multiplicity of their responsibilities, as well as the attitude that sees their role as supplementary, rather than primary, we must look elsewhere for the more intensive, continuous assistance that is indicated for the teachers. An on-going in-service program appears to be the necessary additional ingredient

Specific Recommendations

1. The organization of EIP personnel should be expanded, and the responsibilities at each level should be carefully defined and universally applied.
2. The semi-weekly meetings of the coordinators with the consultants should be continued.
3. A master teacher should be added to the EIP staff in each school to implement the supervision of the EIP with newly appointed teachers, whether they be new to the profession, the district, the school, or the EIP. The master teacher would be directly responsible to the consultant for matters pertaining to the EIP, as compared to the master teachers responsibility for problems related more directly to adjusting to teaching, per se.

4. The master teacher should meet individually with the consultan to discuss her unique questions, as well as be included in the meetings held by the consultants for all EIP teachers in the school.

5. To insure maximum benefits of the consultants' abilities, the responsibilities should be limited in the following way:

   a. No consultant should be responsible for more than one schoo

   b. No consultant should be responsible for more than ten EIP teachers, as originally specified in the first year of EIP.

   c. One consultant should be responsible for each school, regardless of the number of consultants staffed in that schoo

   d. Ultimately, each CPP, or year, level should have its own consultant.

   e. Meetings of consultants and EIP teachers should be held on regularly scheduled basis At the consultant's discretion these meetings should be centered around CPP or year level, to provide more concentrated attention to specific concept skills, and techniques.

   f. Consultants should be responsible for the evaluation of ea EIP youngster's CPP level in reading. This evaluation may be done in individual or small group settings, and should be followed through with a conference with the classroom teacher. The designation of the instructional level shoul be based on the final determination of the consultant.

6. Youngsters functioning above the reading CPP 7th level shoul be involved in a Jr. Great Books program instituted during school time, as an integral part of the EIP.

7. Priority should be given to the development of the school library as a resource center for the youngsters.

   a. Every school should have a library

   b. Every library should be equipped with books at all reader levels, and should not penalize the youngster functioning at the lower levels.

   c. The school library should be seen as an extension of the classroom library. They are mutually dependent, not independent.

8. Greater use could made of the Philadelphia Public Library in enriching the classroom libraries. Multi-level books could be lent, on a rotating basis, thereby increasing each youngster's exposure to appropriate books for him.

9. Class trips should be arranged to familiarize each youngster with his neighborhood public library.

10. The philosophy of EIP, that every child can learn, is supported. The point that needs more careful attention is the pace at which every child can learn. A more carefully delineated program is needed within the overall EIP for the slow learner.

Closer attention is needed for screening out retarded educables from the regular classroom. They should be grouped apart from those youngsters designated as "low achievers".

Emphasis should move beyond the reliance on physical manipulation of instructional materials into the concern for connection of the specific experiences. In this way the children will be learning the ability to draw sound generalizations.

11. It is imperative that all teachers involved in EIP be well informed in the sequence of skills delineated within the structure of the techniques.

    In reading, each teacher should be supplied with, and made responsible to understand, a comprehensive guide outlineing the sequence of skills to be developed in both computation and arithmetic concepts.

12. Concurrent with continued instruction in word analysis, reading instruction must be focused on the comprehension of ideas.

13. A master plan for a comprehensive in-service program is needed. This plan should have as its overlying purpose the fostering of greater professionalism through the stimulation of intellectual curiosity concerning both the art and science of more effective teaching. It must be a plan flexible enough to allow expansion into other subject areas that might be added to EIP. At the same time it must be structured enough to be assimilated as an integral part of tha total job of teaching. Attendance should be compulsory in each area, with leaway existing only insofar as the time of attendance In deference to those teachers already enrolled in University coursework, alternate in-service schedules should be arranged. The following points present further details of such a program.

a. Weekly meetings with school consultant

b. Inter-school visitations (as both visitor and visited)

c. Seminars (4 school days each term, for 24 hour total each term)
(One Plan, as described below, constitutes one term's program)

PLAN A

1 day - Towards a concept of intelligence
1½ days - A diagnostic Approach to the Teaching of Reading
1½ days - Arithmetic

PLAN B

2 days - Improving Comprehension in Reading
1 day - Sequential Overview of Reading
1 day - Arithmetic

PLAN C

2 days - Reading
Improving comprehension
2 days - Creative thinking and teaching

PLAN D

2 days - Arithmetic

2 days - Creative teaching (continued)

PLAN E

4 days - Creativity

PLAN F

4 days - Conceptualization

(Comprehension, Intelligence)

Programs to be conducted during school hours, in lieu of teaching. Attendance of teachers, consultants, and administrators is therefore compulsory, and renumerated.

Seminars to be directed by University staff members and/or EIP Coordinators. Consultants in EIP to be included in, but not directing, seminars.

~~64347~~

CONFIDENTIAL
Not For Publication

A STATISTICAL EVALUATION OF THE EDUCATIONAL IMPROVEMENT PROGRAM OF THE PHILADELPHIA BOARD OF EDUCATION FOR THE SCHOOL YEAR

1965 - 1966

Part B: An evaluation of comparative achievement of two EIP groups and a non-EIP control population.

Research Organization	Temple University
Research Contract Number	520 - 811 - 02
Principal Investigators	Roy A. Kress Marjorie S. Johnson
Date of Report	May 12, 1967

"PERMISSION TO REPRODUCE THIS ~~COPYRIGHTED~~ MATERIAL HAS BEEN GRANTED
BY John Hayman

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE U.S. OFFICE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

Philadelphia Board of Education
Educational Improvement Program
Third Year Study 1965-1966

Introduction

The current study was a continuation of the 1963-1964 and 1964-1965 evaluations of the Educational Improvement Program instituted in the fall of 1963 by the Philadelphia School District. Comparisons were again made between the first (1963-1964) and second (1964-1965) EIP first year classes and between each EIP first year group and the last first year group (1962-1963) prior to initiation of the EIP program. In addition, the third grade reading achievement of the first EIP group was examined. The following specific questions were explored:

I. Were the 1962-1963 and 1963-1964 first year populations significantly different, at the end of the third year level, in achievement in reading, spelling, and arithmetic?

II. What was the 1963-1964 group's level of achievement in reading at third level, in terms of national norms derived from a commerically published standardized reading test?

III. A. Were the 1962-1963 and 1964-1965 first year populations significantly different in terms of first year PVA IQ, second year PVA IQ and PVA P score?

B. What was the relationship between the first and second year PVA IQ scores for the 1964-1965 populations?

IV. How did the 1963-1964 and 1964-1965 first year populations compare, at the end of second year level, in achievement in reading and arithmetic, and in total performance on the second year Philadelphia Verbal Ability Test?

Additional information was obtained on the question of transiency of the 1962-1963 and 1963-1964 populations during their first three years in school. Although this factor could not be investigated completely, the school assignment records were examined for all those students in each population on whom data were available for the whole three years under consideration. This obviously eliminated from the investigation of transiency any students who did not begin their school careers in EIP schools and/or did not have end-of-year test data during each of the three years. Thus the group studied might, in a sense, be somewhat less than the extremes of transiency within these schools.

These questions were answered through collection and treatment of data from tests administered in the regular school program. Philadelphia tests and Metropolitan reading achievement tests were employed. For a description of the methods used in gathering and treating the data, see the reports for the 1963-1964 and 1964-1965 school year studies.

A more intensive evaluation of children in seven schools selected to represent the whole range of EIP schools, was reported separately on October 21, 1966 in "Part A: An analysis of certain elements of the program in seven selected schools." Part A and the current Part B comprise the report of the total third year EIP study.

Results

Question I

The first question investigated was as follows: Were the 1962-1963 and 1963-1964 first year populations significantly different, at the end of the third year level, in achievement in reading, arithmetic, and spelling? Table I reports the relevant results obtained from the Philadelphia achievement tests.

Table I

End of Third Year Comparisons in Achievement between the Experimental (X_1) and Control (C_1) Populations in the EIP Research Project.

	N	Mean	σ	t-ratio	Probability Value
Reading PRT Stand. Sc.					
X_1	4296	6.093	1.983	19.703	<.001
C_1	4025	5.159	2.335		
Arithmetic PAT Stand. Sc.					
X_1	4471	6.827	2.138	9.625	<.001
C_1	4354	6.381	2.214		
Arith. P. Score					
X_1	3737	6.656	2.098	19.010	<.001
C_1	4387	5.678	2.476		
Spelling PST Stand Sc.					
X_1	4470	7.209	2.170	8.039	<.001
C_1	4340	6.829	2.261		

As indicated in Table I, the differences in each area favored the 1963-1964 population (that is, the first EIP group) and were significant at the .001 level of confidence. Thus at third year level, the EIP group significantly surpassed the non-EIP group in reading, arithmetic, spelling, and PVA P score. If the EIP group's superiorities over the non-EIP group are expressed as percentages, with the non-EIP group's score as the base, the following comparisons can be made: in reading, and 18.7% higher average for the EIP group; in arithmetic, a 7.4% higher average for the EIP group; in spelling, a 6.3% higher average for the EIP group; on the PVA P score, a 19.6% higher average for the EIP group.

Question

The second question to be answered was as follows: What was the 1963-1964 group's level of achievement in reading at third level, in terms of national norms derived from a commerically published standardized reading test? Table 2 reports the relevant results from the Metropolitan tests for the third year and reviews the results from those administered at the end of second year for purposes of comparison. In Table 3, the third year results are shown in terms of their distribution in Stanine units.

Table 2

Results of the Metropolitan Reading Tests Administered to the 1963-64 Experimental Population (X_1) at the End of the Second (Primary II-C) and Third (Elem-B) Years of the Program.

sub-test	Mean Raw Score	σ	Metro. Stand Sc.	Metro. Gr. Equiv.	Metro. %ile Rank
Second Year					
Wd. Know.	15.929	8.985	41	2.2	*25th
Wd. Disc.	20.547	8.596	41	2.3	*25th
Reading	21.687	11.871	39	2.1	*20th
Total (N=5145)	57.20	27.60			
Third Year					
Wd. Know	16.826	9.770	39	2.8	**22.5th
Reading	15.137	8.700	39	2.8	**22.5th

*End of the year norms
**Norms at grade 3.6

Table 3

Distribution of Third Year Results of the Metropolitan Reading Test in Stanine Score Units for the Experimental (X_1) Population in the E.I.P. Research Project.

Stanine Score	Word Knowledge Sub-test		Reading Sub-test		Total Raw Score	
	N = 3250		N = 3245		N = 3236	
	%	Cum.%	%	Cum.%	%	Cum.%
9	1.4	99.5	.7	100.0	.7	100.0
8	2.2	98.1	1.4	99.3	1.9	99.3
7	5.0	95.9	2.8	97.9	3.5	97.4
6	6.6	90.9	10.4	95.1	8.8	93.9
5	9.3	84.3	13.0	84.7	11.8	85.1
4	14.2	75.0	24.4	71.7	18.9	73.3
3	30.1	60.8	18.6	47.3	26.6	54.4
2	12.2	30.7	12.4	28.7	14.2	27.8
1	18.5	18.5	16.3	16.3	13.6	13.6

No direct comparison can be made between the raw score means and standard deviations for these two tests. The more meaningful comparison of achievement during the two years can be made from the grade equivalents and the percentile rankings of the two sets of data. In terms of average scores converted to grade equivalents, the 1963-1964 EIP group showed an average achievement at 2.8 grade level at the end of third grade in both word knowledge and reading. At the end of second level, the grade equivalents for the group had ranged from 2.1 to 2.3. In terms of the Metropolitan percentile rankings, there was no marked change in the average scores for the two years, with all falling between the 20th and 25th percentiles. This is encouraging in that the relatively low percentile rank at the end of second grade might have led to the expectation that it would be even lower at the end of third. Instead, the children appear to be maintaining their relative rank, one not markedly different from that obtained by many large city populations.

The distribution of the third year scores shows that although the performances of these children cover the whole range of scores, from lowest to highest, there is a concentration of scores in the lower brackets. In each area of the test, less than ten percent of the scores fell within the upper three stanine groups.

Question III

The third question studied was concerned with results on the Philadelphia Verbal Ability Test. It was as follows:

A. Were the 1962-1963 and 1964-1965 first year populations significantly different in terms of first year PVA IQ, second year PVA IQ and PVA P score? The first part of this question establishes the relative equivalence of the groups on this measure at the start of their school careers. The second reflects their comparative ratings at the end of second year.

B. What was the relationship between the first and second year PVA IQ scores for the 1964-1965 population?

Tables 4 and 5 report the relevant results from the Philadelphia Verbal Ability Test.

Table 4

Comparisons between the 1964-65 Experimental Sample (X_2) and the Control Population (C_1) on the PVA IQ at Year One, Year Two and on the P-Score at Year Two.

	N	Mean	σ	t-ratio	Probability Value
Year One PVA IQ					
X_2	1441	96.285	13.510	5.679	<.001
C_1	7571	94.297	11.904		
Year two PVA IQ					
X_2	1343	101.393	11.623	7.297	<.001
C_1	6396	96.947	21.690		
Year two P-Score					
X_2	1342	4.950	1.623	8.681	<.001
C_1	6395	4.538	1.573		

Table 5

Pearson Product Moment Correlation between the PVA IQ Obtained by the 1964-65 Experimental Sample (X_2) in Year One and Year Two.

Variable	N	Mean	σ	r	Level of Significance
Year 1	1324	96.32	13.497	.586	<.001
Year 2		101.44	11.500		

The results of the comparison of the 1962-1963 (non-EIP) and 1964-1965 (second EIP) populations on their first and second grade PVA performances indicate that differences in all measures, including the first grade PVA IQ, were significant at the .001 level and favored the 1964-1965 EIP group. However, even in spite of the original inequality of the groups, the comparison of the second grade performances of the two groups provided evidence of greater improvement in the EIP than in the non-EIP group. The non-EIP group (1962-1963) had second grade PVA IQ's which were 2.7% higher than their first grade PVA IQ's. The EIP group (1964-1965) had second grade IQ's which were 5.4% higher than those derived from their first grade tests.

The Pearson r for these two IQ scores in the latter group was (considering only those individuals on whom both scores were available) was .59, which obviously is not a close relationship for two "intelligence" tests from the same series even though the relationship is highly significant. The improved IQ mean on the second year test is encouraging in terms of achievement, as well as in itself as an IQ score, because of the amount of reading performance which is called for as a part of this test.

Question IV

The final major question to be answered was as follows: How did the 1963-1964 and 1964-1965 first year populations compare, at the end of second year level, in achievement in reading and arithmetic, and in total performance on the second year Philadelphia Verbal Ability Test? Table 6 reports the relevant data from the two tests. Table 7 shows the standard score distributions on the Metropolitan for the 1964-1965 population.

Table 6

Comparison between the 1963-64 Experimental Population (X_1) and the 1964-65 Experimental Sample (X_2) on the PVA IQ, PVA P-Score and the Metropolitan Reading Tests Administered at the End of Year Two.

Variable Group	N	Mean	σ	t-ratio	Probability Value
PVA IQ					
X_1	5210	100.140	11.818	3.480	<.001
X_2	1343	101.393	18.507		
P-Score					
X_1	4762	4.824	1.602	2.535	<.01
X_2	1342	4.950	1.623		
Metropolitan Word Knowledge (Raw)					
X_1	5112	15.817	9.051	2.170	<.05
X_2	741	15.049	8.573		
Metropolitan Word Discrimination (Raw)					
X_1	5112	20.375	8.744	0.398	>.05
X_2	741	20.238	8.577		
Metropolitan Reading (Raw)					
X_1	5112	21.559	11.949	1.880	>.05
X_2	727	20.669	11.798		
Metropolitan Total Raw Score					
X_1	5102	58.420	34.887	1.633	>.05
X_2	725	56.216	26.798		

Table 7

Distributions of the Experimental Population (X_2) by Standard Score Units on the Metropolitan Reading Test Administered to All Second Year Pupils in June, 1966.

		Percent Scoring at each Stand. Score Interval	
Standard Score	Raw Score Range	EIP Sample	
		N=731	
		%	Cum.%
10	108+	3.3	100.0
9	99-107	5.2	96.7
8	85-98	9.9	91.5
7	63-84	19.0	81.6
6	47-62	18.2	62.6
5	37-46	15.5	44.4
4	29-36	13.5	28.9
3	22-28	9.2	15.4
2	0-21	6.2	6.2
Median Stand. Score			6
Mean Stand. Score			5.727
Mode			7

Table 6 shows, in the second year comparisons for the two EIP groups (1963-1964) and (1964-1965), that there were small but significant differences in favor of the first EIP group (1963-1964) on PVA measures, and a less significant difference in favor of the first EIP group (1963-1964) on the word knowledge subtest of the Metropolitan. None of the other differences was significant although all favored the first EIP group slightly.

Table 7 reports the distribution of the scores attained on the Metropolitan by the 1964-1965 group, according to standard scores. Comparison of this distribution with that for the 1963-1964 group (Table XIA, 1965 report) reveals a slight tendency in the 1964-1965 scores toward heavier concentration in the lower standard score brackets and fewer scores in the higher brackets.

Transiency

The relative transiency in the non-EIP (1962-1963) and first EIP groups was investigated. Those students were considered who had been a part of the population during each year of the three year study. Table 8 shows the comparison of the mean number of times transferred for these two populations as a whole. Tables 9 and 10 show the distributions for each population independently in terms of the total times transferred within the three year period.

Table 8

Comparisons in Numbers of Times Children Transferred Schools between the Experimental (X_1) and Control (C_1) Populations for the Period from Entrance into the First Year of School through March 31 of the third year.

	N	Mean	σ	t-ratio	Probability Value
Mean Times Transferred					
X_1	4542	.433	.842	4.776	<.001
C_1	4391	.525	.968		

Table 9

Distribution of the Number of Times Children Transferred Schools within the Control (C_1) Population for the Period from Entrance into the First Year of School through March 31 of the Third Year.

	Percent at each interval	
	N=4391	
Numbers of Transfers	%	Cum.%
9	.00	99.96
8	.04	99.96
7	.18	99.92
6	.18	99.74
5	.41	99.56
4	1.09	99.15
3	2.73	98.06
2	7.78	95.33
1	19.60	87.55
0	67.95	67.95

Table 10

Distribution of the Number of Times Children Transferred Schools within the Experimental (X_1) Population for the Period from Entrance into the First Year of School through March 31 of the Third Year.

	Percent Scoring at each interval	
	N=4542	
Number of Transfers	%	Cum.%
9	.02	99.97
8	.00	99.95
7	.02	99.95
6	.02	99.93
5	.26	99.91
4	.72	99.65
3	2.31	98.93
2	7.68	98.62
1	16.55	88.94
0	72.39	72.39

There were significantly more instances of transfer in the non-EIP control group than in the first EIP group, within the limitations of the information available to the investigators. The distributions for the two groups, when they are compared, show that this difference appears to be made up of a combination of more cases in which no transfers occurred and fewer cases with multiple transfers. If the population studied here represents the total of these two groups, somewhat greater stability accompanied the introduction of the Educational Improvement Program.

Conclusions

Throughout the three-year evaluation of the achievement of pupils who have participated in the Educational Improvement Program, all comparisons which have been made between EIP and non-EIP (that is, the entering class just prior to the initiation of the program) have shown significant differences in favor of the EIP groups. As a result of the third year evaluation specifically, the following conclusions can be drawn:

I. The cumulative effects of three years of the EIP program have resulted in continuing significant superiority of the first EIP group (1963-1964) over the non-EIP or control group (1962-1963) in both reading and arithmetic. Further, the EIP group showed at third grade level, where this area was evaluated for the first time, significantly superior spelling achievement.

II. On national norms, the average achievement of the first EIP group (1963-1964) was again, at the end of third year, below grade level, as it had been at the end of second. The range of achievement was what might be expected in any group of children at this level although the average achievement of this group was lower than the national average because of the greater number of children scoring below this point.

III. The second EIP group (1964-1965) showed, at second year level, considerably greater positive change in IQ as derived from the PVA than had the non-EIP group (1962-1963). Although the average IQ on the kindergarten-first grade PVA had been significantly higher in the 1964-1965 population, the significance of the difference at second year level still cannot be considered as unrelated to the school program. The rate of increase in scores was definitely greater for the EIP group.

IV. The first and second EIP groups were not significantly different at the end of their second year programs in terms of reading achievement, except as it is reflected in the scores attained on the second grade PVA, which involves a great deal of reading. In arithmetic, the second group was significantly superior to the first in terms of the P score from the PVA. It would seem, however, that the degree of superiority of the second group over the first in achievement which had occured at first year level was certainly not maintained during their second year program.

Implications

I. The consistency with which the groups under the Educational Improvement Program exhibited superiority in achievement over the non-EIP control group testifies to the fact that education was truly improved in the primary program of the schools included.

II. There is evidence to suggest that the improvements in program for these schools were not continuous. It seems likely, based on both the achievement results amd information on staffing, etc., that the improvements were diluted as the number of children being served (through increasing the number of schools included in the program and the grade range) was increased. The original criteria for class size, consultant aid, and fully-qualified permanently-appointed teachers could be met for a decreasing percentage of the total pupils involved.

III. Efforts of the type made in the original plans for EIP should certainly be continued. However, there may be little merit in continuing to expand the range of the program under circumstances in which basic criteria cannot be met.